



Smart solutions.
Strong relationships.

"CGS" Horizontal Split Case Pumps

CGS series - Bare Shaft / Coupled Set



CGL Pumps - RELIABILITY BUILT IN...

CGL - Crompton Greaves Ltd, is an Indian MNC of US\$3BN Avantha Group conglomerate with an impressive global foot print operating over 10 countries and has a leadership position in most of its lines of Business.

CGL is Designing and Manufacturing Dependable innovative range of Centrifugal pumps for over 45 years, and supplying to various core sectors of global economy like Water and Waste Water Management, Irrigation, Water Works, Fire Fighting, Processing, Power, Fertilizer, Refinery, Paper, Sugar and Textile Mills. Today CGL is the company having a wide product range of more than 2000 varied pump models catering to different areas of domestic as well as export market.

CGS - Horizontal Split Case Pump Series provides a new generation pumps having broad range of hydraulic coverage and low total cost of ownership, with reliable performance in variety of services. CGS pumps are available as bare pumps and coupled sets.

Significant Benefits

Superior Pump Performance

- Excellent hydraulic and overall efficiency.
- Good Suction capability

- Low NPSH Requirement
- High Reliability
- Vibration Free Stable Performance
- Low Noise
- Great cavitation resistance capability.

Low Life Cycle Cost

- Minimal energy consumption due to Optimum Hydraulic Design.
- Increased Uptime.
- Advanced Rugged and Heavy Duty Construction.
- Easy and Simple Maintenance.
- Minimum Shaft Deflection with good rigidity.
- Space Efficient due to Compact structure
- Easily Serviceable

Versatility

- Multiple configurations
- Integrated design philosophy provides optimum parts interchangeability
- Total Reliable Performance in various applications.
- Minimum need for parts inventory.
- Prolong Life span
- Easy Installation

"CGS" Horizontal Split Case Pumps

Special Features : A Closer Look...

- Due to Split type casing design, rotating assembly and internal pump parts are easily accessible for inspection, maintenance and removal purpose without disturbing main piping, valves and driver (Or prime mover).
- As cast built-in mounting feet, extends bearing life and overall pump life by transmitting strain loads to the base plate and foundation.
- In line Suction and Discharge nozzles simplifies piping arrangement, the pump being inline.
- Stiff shaft design for arduous service conditions with replaceable protection sleeves.
- Stable Performance operating characteristics.
- Maximizes Efficiency by allowing minimum internal leakage within pump.

Performance Range/Technical Parameters :

Capacity (Flow) up to : 1400 m³/hr.

Head up to : 160 meters.

Max. Rating : 450 kW

Speed : 1450 rpm Delivery Nozzle Size up to 250 mm

Liquid Temperature Range :

Up to 70° C with Gland Packing Construction.

Up to 120° C with Special Mechanical Seals.

Constructional Details :

- **Pump Casing :** Horizontal axially split volute type design with suction discharge nozzles and supporting feet are cast integral with lower half casing to resist external forces and vibrations. Both Suction and Discharge flanges have provision for gauge connections. Dowels to insure proper alignment of upper and lower casing.
- **Pump Flanges :** Standard drilled to DIN 2533, PN16, Plain faced, which are suitable for 16-bar pressure. ASME (Formerly ANSI) and AWWA flanges are also available (Optional). Both flanges are opposite in same line integrated within lower half casing simplifies further piping work at site.
- **Impeller :** Engineered "Closed" with double suction design minimizes axial thrust for longer bearing life. Dynamically balanced as standard for smooth operation. Additional surface finish and Impeller preparation helps to improve overall efficiency. Extended vanes and enlarged eye contribute to a reduction in noise and vibration as well as low overall NPSH requirement.
- **Shaft and Shaft Sleeve :** High tensile steel material with precision ground machined and designed for minimum deflection in the toughest services. Shaft sleeve protects the shaft from wear, corrosion and pumpage, extending overall working period of shaft and usable life of the pump. Shaft sleeves are available in a wide variety of metallurgies such as steel, bronze, etc.
- **Stuffing Box :** With versatile shaft sealing arrangement. Gland packing (Standard) or by Mechanical seal (Optional) to suit variety of applications.
- **Bearings :** Grease lubricated maintenance free, deep groove ball type bearings are standard and protected effectively with water deflector. Each bearing is capable of carrying both line and thrust type loads. Bearings are selected in conjunction with proper bearing span and large diameter shaft to provide a long trouble free working life.
- **Casing Wear Protection Rings :** Replaceable type to protect casing from wear and tear. Also assures smooth flow to the impeller to improve operating efficiency. Wear rings reduces maintenance costs and helps to maintain smooth operating conditions.
- **Direction of Rotation :** Standard- Anticlockwise (ACW) when viewed from driving.
Optional - Clockwise (CW) when viewed from driving end.
- **Material of Construction :** Available in Cast Iron Construction as standard. Also available in Bronze and Stainless Steel as a optional.
(Refer Material of Construction Table on the next page)
- **Drive :** Suitable for coupled with Electric Motors, Engines or Steam Turbines either directly coupled or through gear boxes, etc.

"CGS" Horizontal Split Case Pumps

Model CGS (Heavy Duty)

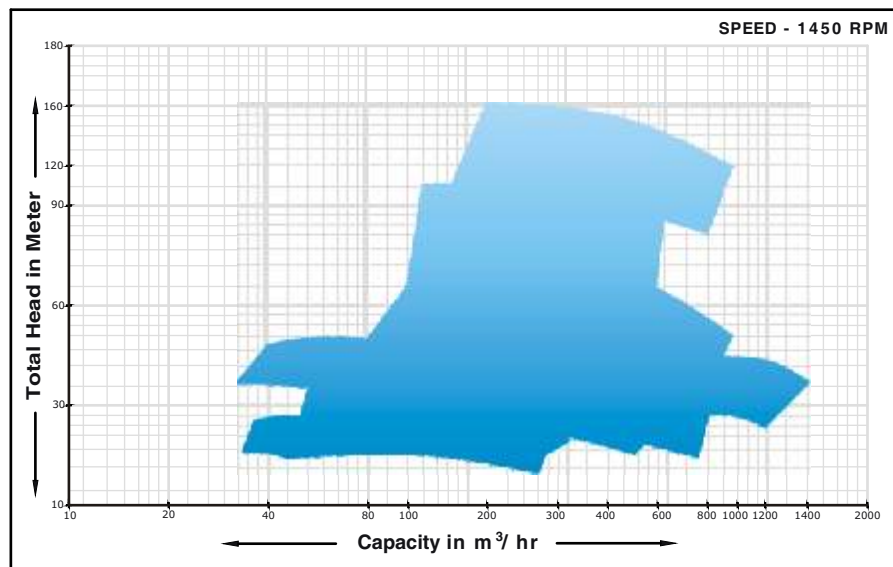
- Horizontal mounting
- Grease lubricated bearings
- Dual volute casing in most models
- Alloy constructions shown below are optional
- Packing as standard

Materials of Construction

Past Description	Standard MOC	Bronze Fitted	316 SS Fitted
Casing	Cast Iron		
Impeller	Cast Iron	Bronze	316 SS
Packing	Graphite Impregnated Yarn		
Packing Gland	Cast Iron		
Shaft	CS / SS	CS / SS	316 SS
Shaft Sleeve Nut	SS	SS	316 SS
Shaft Sleeve	SS	SS	316 SS
Casing Wear Ring	Cast Iron	Bronze	Bronze/316 SS
Bearing Housing	Cast Iron		
Bearings	Grease lubricated deep bearings - SKF/FAG/Eqvt. make		

Material standards	IS	Equivalent International Standards	
		BS	ASTM
Cast Iron	Gr. FG 260 of IS 210 (1978)	BS EN 1561-GJL 250	ASTM - A 48 CL 35
Carbon Steel	Gr. 40C8 of IS 1570-2	BS 970 080 M 40	ASTM - A 107 Gr. 1040
SS - CF8M	Gr. 9 of IS 3444	BS1632 Gr. B	ASTM - A 351 Gr. CF8M
316 SS	Gr. 05 Cr. 18 of IS 1570-5	BS 970 316 S16	ASTM - A 276 Type 316
SS (410)	Gr. 12 Cr. 13 of IS 1570-5	BS 970 410 S 21	ASTM - A 276 Type 410
Bronze	Gr. LTB2 of IS 318	BSEN 1982-CC 491K	ASTM - B62, B145 Alloy 4A

PERFORMANCE RANGE



As the design and manufacture of CROMPTON GREAVES equipments are subject to constant improvement the product supplied may differ in some details from the specifications and illustrations given.

Crompton Greaves Limited